

Hydrologic Model Manager

Short Name	
Long Name	Truckee - Carson Water Operations Model
Description	
Model Type	Fortran monthly mass balance accounting model
Model Objectives	To simulate various operation scenarios on the Truckee-Carson River systems.
Agency Office	Bureau of Reclamation, Carson City, NV
Tech Contact	Tom Scott, Carson City Area Office, Carson City, NV
Model Structure	Model keeps track of water by month for period of record of up to 97 years (1901-1997). Model output shows resultant conditions based on set of alternatives. Model has tremendous amount of flexibility in allocating the demands and matching sources of water.
Interception	
Groundwater	
Snowmelt	
Precipitation	
Evapo-transpiration	
Infiltration	
Model Paramters	
Spatial Scale	Truckee and Carson River Watershed areas. A comprehensive 1901-1997 historic database exists for hydrologic parameters, inflows, precipitation, and evaporation.
Temporal Scale	The model is run monthly for up to 97 years using historical hydrologic data. Model is also able to run 200 stochastic data sets for a period of 200 years.
Input Requirements	The model requires the following input files: ~TCDATFIL, an 97-year historic hydrology file, ~NCONCOF, an initial condition file, ~NRUNDATA, a parameter file describing all of the options and switches, and ~LINENAME, a file used to for writing the output file.
Computer Requirements	386 class microcomputer, FORTRAN 77 compiler, math coprocessor, and Denver's CYBER Computer System (outdated version). Program consists of over 100 subroutines and over 10,000 lines of code.
Model Output	Four pages of output for each model year. About 390 pages (2,000,000 bytes) produced for each 97 year run. File is usually scanned for key output values.
Parameter Estimatr Model Calibrtn	
Model Testing Verification	
Model Sensitivity	
Model Reliability	
Model Application	
Documentation	
Other Comments	Strengths: The use by the Technical Advisory Team in making decisions. Team recognizes strengths and weaknesses. Use has been extensive in writing the Truckee Carson E.I.S. and subsequent negotiated settlement.

Weaknesses: Undocumented portion of the "black box" which determines historic depletions in the Truckee Meadows.

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Developer	
Technical Contact	
Contact Organization	